

OCT 10 2006

Serial No.: 10/085,324
Docket No.: 050115-1110**AMENDMENTS TO THE CLAIMS**

1-4. (Cancelled)

5. (Currently Amended) The method of claim [[1]] 6, wherein said memory is a content addressable memory.

6. (Currently Amended) ~~The method of claim 1,~~ A method of determining a source of an Internet protocol (IP) packet, comprising the steps of:

comparing a destination address of said IP packet to a first destination address stored within a first destination address cell of a memory, and comparing a destination port of said IP packet to a first destination port stored within a first destination port cell of said memory;

comparing a source address of said IP packet to a first source address stored within a first source address cell of said memory, and comparing a source port of said IP packet to a first source port stored within a first source port cell of said memory, wherein said stored first source address and said stored first source port are associated with said stored first destination address and said stored first destination port; and

storing said source address and said source port of said IP packet within said memory to determine said source of said IP packet if:

said destination address and said destination port of said IP packet match said stored first destination address and said stored first destination port;

said source address and said source port of said IP packet do not match said stored first source address and said stored first source port; and

said stored first source address and said stored first source port are universal bits, wherein universal bits are bits that accept any value,

Serial No.: 10/085,324
Docket No.: 050115-1110

wherein a first table group stored within said memory comprises said stored first destination address, said stored first destination port, said stored first source address and said stored first source port, said first table group being assigned a first weight value, said memory having a second table group comprising a stored second destination address, a stored second destination port, a stored second source address and a stored second source port, wherein said stored second source address and said stored second source port are universal cells, and said second table group being assigned a second weight value, said method further comprising the steps of:

prior to said step of storing said source address and said source port of said IP packet, comparing said source address, source port, destination address, and destination port of said IP packet to said first table group and said second table group; and

if said source address, source port, destination address, and destination port of said IP packet are the same as said first table group, and said destination address and destination port of said IP packet are the same as said stored second destination address and said stored second destination port, comparing said first weight value to said second weight value, and not performing said step of storing said source address and said source port of said IP packet if said first weight value is larger than said second weight value.

7. (Original) The method of claim 6, wherein a table group comprising universal bits has a lower weight value than a table group not comprising universal bits.

8. (Currently Amended) The method of claim [[1]] 6, wherein [[a]] first table group stored within said memory further comprises said stored first destination address, said stored first destination port, said stored first source address, said stored first source port and a latch flag, wherein said stored first source address and said stored first source port are universal bits, said

Serial No.: 10/085,324
Docket No.: 050115-1110

step of storing said source address and said source port of said IP packet within said memory further comprising the steps of:

storing said source address, said source port, said destination address and said destination port of said IP packet within a new table group, wherein said new table group does not have a latch flag; and

deleting said first table group.

9. (Currently Amended) The method of claim [[9]] 6, wherein a first weight value is associated with said first table group, and wherein said new table group is assigned a new weight value that is higher than said first weight value.

10-13. (Cancelled)

14. (Currently Amended) ~~The system of claim 10,~~A system for determining a source of an Internet protocol (IP) packet, comprising:

a memory; and

a processor, wherein said processor performs the steps of:

comparing a destination address of said IP packet to a first destination address stored within a first destination address cell of said memory, and comparing a destination port of said IP packet to a first destination port stored within a first destination port cell of said memory;

comparing a source address of said IP packet to a first source address stored within a first source address cell of said memory, and comparing a source port of said IP packet to a first source port stored within a first source port cell of said memory, wherein said stored first source address and said stored first source port are associated with said stored first destination address and said stored first destination port; and

Serial No.: 10/085,324
Docket No.: 050115-1110

storing said source address and said source port of said IP packet within said memory to determine said source of said IP packet if:

said destination address and said destination port of said IP packet match said stored first destination address and said stored first destination port:

said source address and said source port of said IP packet do not match said stored first source address and said stored first source port:

and said stored first source address and said stored first source port are universal bits, wherein universal bits are bits that except any value,

wherein a first table group stored within said memory comprises said stored first destination address, said stored first destination port, said stored first source address and said stored first source port, said first table group having a first weight value, said memory having a second table group comprising a stored second destination address, a stored second destination port, a stored second source address and a stored second source port, wherein said stored second source address and said stored second source port are universal cells, and said second table group having a second weight value, said processor further performing the steps of:

prior to said step of storing said source address and said source port of said IP packet, comparing said source address, source port, destination address, and destination port of said IP packet to said first table group and said second table group; and

if said source address, source port, destination address, and destination port of said IP packet are the same as said first table group, and said destination address and destination port of said IP packet are the same as said stored second destination address and said stored second destination port, comparing said first weight value to said second weight value, and not

performing said step of storing said source address and said source port of said IP packet if said first weight value is larger than said second weight value.

15. (Original) The system of claim 14, wherein a table group comprising universal bits has a lower weight value than a table group not comprising universal bits.

16. (Currently Amended) The system of claim ~~[[10]]~~ 14, wherein ~~[[a]]~~ the first table group stored within said memory comprises said stored first destination address, said stored first destination port, said stored first source address, said stored first source port and a latch flag, wherein said stored first source address and said stored first source port are universal bits, said step of storing said source address and said source port of said IP packet within said memory further comprising the step of:

said ~~network~~ processor storing said source address, said source port, said destination address and said destination port of said IP packet within a new table group, within said memory, wherein said new table group does not have a latch flag; and
deleting said first table group.

17. (Original) The system of claim 16, wherein a first weight value is associated with said first table group, and wherein said new table group is assigned a new weight value that is higher than said first weight value.

18-23. (Cancelled)

24. (New) A method of detecting a new Internet protocol (IP) packet using a multimedia packet flow table, comprising:

Serial No.: 10/085,324
Docket No.: 050115-1110

examining a received IP packet comprising a destination address and a source address;
and

creating a new table group in the multimedia packet flow table, based on the source address in the IP packet and on a matching destination address cell of an existing table group in the multimedia packet flow table, if:

the destination address of the IP packet matches a destination address cell of an existing table group in the multimedia packet flow table;

the source address of the IP packet does not match a source address cell of the existing table group that includes universal bits; and

a latch bit the existing table group is set.

25. (New) The method of claim 24, further comprising:

copying the destination address cell of the matching existing table group to the new table group; and

copying the source address in the IP packet to the new table group.

26. (New) The method of claim 24, further comprising:

clearing the latch bit in the new table group.

27. (New) The method of claim 24, further comprising:

copying a source translation address cell of the existing table group to a translation addresses cell of the new table group, wherein universal bits in the source translation address cell establish that the replacement source address in the translation addresses cell is the source address of the IP packet.

28. (New) The method of claim 24, further comprising:

Serial No.: 10/085,324
Docket No.: 050115-1110

if the source address and destination address of the IP packet match the contents of respective cells in the existing table group, and the destination address and destination port of the IP packet are the same as the contents of a second destination address cell, then:

comparing a first weight value to a second weight value, and

leaving the source address of the IP packet unchanged when the first weight value is larger than the second weight value.

29. (New) The method of claim 24, further comprising:

deleting the contents of a plurality of cells within the matching existing table group.

30. (New) The method of claim 24, wherein a first weight value is associated with the existing table group, and wherein the new table group is assigned a new weight value that is higher than the first weight value.

31. (New) A system for detecting a new Internet protocol (IP) packet from a source not yet present in a multimedia packet flow table, comprising:

a content addressable memory storing at least one table group, the table group further comprising a source address cell, a destination address cell, and a latch bit; and

a processor coupled to the content addressable memory and configured to:

examine a received IP packet comprising a destination address and a source address; and

store a new table group in the memory, based on the source address in the IP packet and on a matching destination address cell, if:

the destination address of the IP packet matches the destination address cell of the at least one table group;

Serial No.: 10/085,324
Docket No.: 050115-1110

the source address cell of the at least one table group includes universal bits and does not match the source address of the IP packet; and
a latch bit the at least one table group is set.

32. (New) The system of claim 31, wherein the processor is further configured to:
copy the destination address cell of the matching existing table group to the new table group; and

copy the source address in the IP packet to the new table group.

33. (New) The system of claim 31, wherein the processor is further configured to:
clear the latch bit in the new table group.

34. (New) The system of claim 31, wherein the processor is further configured to:
deleting the contents of a plurality of cells within the matching existing table group.

35. (New) The system of claim 31, wherein a first weight value is associated with the at least one table group, and wherein the new table group is assigned a new weight value that is higher than the first weight value.